5

10

15

20

25

## WHAT IS CLAIMED IS:

1. A flash lamp having a cathode and an anode, which are disposed within a sealed container encapsulating a gas therein, for effecting an arc discharge, comprising two trigger probes arranged such that their tips are directed to the discharge space between said cathode and said anode,

wherein said cathode comprises a metal substrate having a pointed head directed toward said anode and containing a high-meltingmetal, and a metal coating covering a predetermined part of a surface of said metal substrate; and

wherein said pointed head of said metal substrate has a tip portion exposed without being covered with said coating.

- 2. A flash lamp according to claim 1, wherein said anode has a structure identical to that of said cathode.
- 3. A flash lamp according to claim 1, wherein said high-melting metal includes at least one species selected from the group consisting of tungsten, molybdenum, tantalum, and niobium.
- 4. A flash lamp according to claim 3, wherein said metal substrate contains at least one selected from the group consisting of barium, calcium, strontium, lanthanum, yttrium, and cerium.
- 5. A flash lamp according to claim 3, wherein said metal coating contains at least one selected from the group consisting of iridium, rhenium, osmium, ruthenium, tungsten, hafnium, and tantalum.

A flash lamp according to claim 1, wherein said 6. metal substrate is made of tungsten as said high-melting metal with barium contained therein, and wherein said metal coating is made of iridium.

5